

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1-11. (canceled).

12. (currently amended) A polymerizable dental composition comprising:

- (a) 10 to 98.999 wt.% of at least one bi- or higher-functional ethylenically unsaturated monomer,
- (b) 0 to 88.999 wt.% of at least one monofunctional ethylenically unsaturated monomer,
- (c) 0.05 to 5 wt.% of an accelerator,
- (d) 0.001 to 5 wt.% of a redox initiator system which can initiate radical polymerisation, and
- (e) 0 to 88.999 wt.% of at least one of one or more fillers, thixotropic auxiliaries, retarders and other auxiliaries,
- (f) 1 to 30 wt.% of a plasticizer,

wherein the redox initiator system comprises (i) barbituric acid or a substituted barbituric acid derivative—and/or a malonyl sulfamide and (ii) an organic peroxide that is a mono- or multifunctional carboxylic acid peroxyester,

wherein the constituents (a), (b) and (c) constitute a base paste, ~~and the constituents~~ constituent (d) and (e) constitute constitutes a catalyst paste spatially separated from the base paste, the constituent (e) is optionally present in either or both of the base paste and the catalyst paste and the constituent (f) is present in one or the other or both of the catalyst paste and the base paste.

13. **(previously presented)** The polymerizable dental composition of claim 12, in which the carboxylic acid peroxyester is a carboxylic acid alkyl peroxyester.

14. **(previously presented)** The polymerizable dental composition according to claim 13, in which the alkyl group of the organic peroxide is branched or cyclic.

15. **(previously presented)** The polymerizable dental composition according to claim 13, in which the alkyl group of the organic peroxide is linear.

16. **(currently amended)** The polymerizable dental composition according to claim 13, in which the carboxylic acid alkyl peroxyester is selected from the group consisting of carbonic-diisopropyl-peroxydiester, neodecanoic acid tertiarybutyl-peroxyester, neodecanoic acid-tertiaryamyl-peroxyester, maleic

acid-tertiarybutyl-monoperoxyester, benzoic acid-tertiarybutyl-peroxyester, 2-ethylhexanoic acid-tertiarybutyl-peroxyester, 2-ethylhexanoic acid-tertiaryamyl-peroxyester, carbonic-monoisopropylester-monotertiarybutyl-peroxyester, carbonic-dicyclohexyl-peroxyester, carbonic-dimyristyl-peroxyester, carbonic dicetyl-peroxyester, carbonic-di(2-ethylhexyl)-peroxyester, carbonic-tertiarybutyl-peroxy-(2-ethylhexyl)ester, or 3,5,5-trimethylhexanoic acid-tertiarybutyl-peroxyester, benzoic acid-tertiaryamyl-peroxyester, acetic acid-tertiarybutyl-peroxyester, carbonic-di(4-tertiarybutyl-cyclohexyl)-peroxyester, neodecanoic acid-cumene-peroxyester, pivalic acid-tertiaryamyl-peroxyester and pivalic acid tertiarybutyl-peroxyester.

17. **(previously presented)** The polymerizable dental composition according to claim 12, in which the organic peroxide is carbonic-tertiarybutyl-peroxy-(2-ethylhexyl)ester or 3,5,5-trimethylhexanoic acid-tertiarybutyl-peroxyester.

18. **(previously presented)** The polymerizable dental composition according to claim 12, in which constituent (a) is present in a concentration of 30 to 80 wt.%.

19. **(previously presented)** The polymerisable dental composition according to claim 12, in which constituent (a) is present in a concentration of 45 to 70 wt.%.

20. (previously presented) The polymerisable dental composition according to claim 12, in which constituent (b) is present in a concentration of 0 to 58.99 wt.%.

21. (previously presented) The polymerisable dental composition according to claim 12, in which constituent (b) is present in a concentration of 0 to 33.9 wt.%.

22. (previously presented) The polymerisable dental composition according to claim 19, in which constituent (b) is present in a concentration of 0 to 58.99 wt.%.

23. (previously presented) The polymerisable dental composition according to claim 20, in which constituent (b) is present in a concentration of 0 to 33.9 wt.%.

24. (currently amended) The polymerizable dental composition according to claim 12, in which constituent (c) is present in a concentration of ~~0 to~~ 0.05 to 3 wt.%

25. (previously presented) The polymerizable dental composition according to claim 12, in which constituent (c) is present in a concentration of 0.05 to 2 wt.%.

26. (currently amended) The polymerizable dental composition according to claim 19, in which constituent (c) is present in a concentration of ~~0 to~~ 0.05 to 3 wt.%

27. (previously presented) The polymerizable dental composition according to claim 20, in which constituent (c) is present in a concentration of 0.05 to 2 wt.%.

28. (currently amended) The polymerizable dental composition according to claim 21, in which constituent (c) is present in a concentration of ~~0 to~~ 0.05 to 3 wt.%

29. (previously presented) The polymerizable dental composition according to claim 22, in which constituent (c) is present in a concentration of 0.05 to 2 wt.%.

30. (currently amended) The polymerizable dental composition according to claim 23, in which constituent (c) is present in a concentration of ~~0 to~~ 0.05 to 3 wt.%

31. (previously presented) The polymerizable dental composition according to claim 12, in which constituent (d) is present in a concentration of 0.01 to 3 wt.%.

32. **(previously presented)** The polymerizable dental composition according to claim 12, in which constituent (d) is present in a concentration of 0.05 to 2 wt.%.

33. **(previously presented)** The polymerizable dental composition according to claim 19, in which constituent (d) is present in a concentration of 0.01 to 3 wt.%.

34. **(previously presented)** The polymerizable dental composition according to claim 20, in which constituent (d) is present in a concentration of 0.05 to 2 wt.%.

35. **(previously presented)** The polymerizable dental composition according to claim 21, in which constituent (d) is present in a concentration of 0.01 to 3 wt.%.

36. **(previously presented)** The polymerizable dental composition according to claim 22, in which constituent (d) is present in a concentration of 0.05 to 2 wt.%.

37. **(previously presented)** The polymerizable dental composition according to claim 23, in which constituent (d) is present in a concentration of 0.01 to 3 wt.%.

38. **(previously presented)** The polymerizable dental composition according to claim 24, in which constituent (d) is present in a concentration of 0.05 to 2 wt.%.

39. **(previously presented)** The polymerizable dental composition according to claim 25, in which constituent (d) is present in a concentration of 0.01 to 3 wt.%.

40. **(previously presented)** The polymerizable dental composition according to claim 26, in which constituent (d) is present in a concentration of 0.05 to 2 wt.%.

41. **(previously presented)** The polymerizable dental composition according to claim 27, in which constituent (d) is present in a concentration of 0.01 to 3 wt.%.

42. **(previously presented)** The polymerizable dental composition according to claim 28, in which constituent (d) is present in a concentration of 0.05 to 2 wt.%.

43. **(previously presented)** The polymerizable dental composition according to claim 29, in which constituent (d) is present in a concentration of 0.01 to 3 wt.%.

44. (previously presented) The polymerizable dental composition according to claim 30, in which constituent (d) is present in a concentration of 0.05 to 2 wt.%.

45. (previously presented) The polymerizable dental composition according to claim 12, in which constituent (e) is present in a concentration of 10 to 68.99 wt.%.

46. (previously presented) The polymerizable dental composition according to claim 12, in which constituent (e) is present in a concentration of 20 to 53.9 wt.%.

47. (previously presented) The polymerisable dental composition according to claim 12, in which constituent (f) is present in a concentration of 1 to 20 wt.%.

48. (previously presented) The polymerisable dental composition according to claim 12, in which constituent (f) is present in a concentration of 1 to 15 wt.%.

49. (currently amended) A polymerizable dental composition comprising:

- (a) 10 to 98.999 wt.% of at least one bi- or higher-functional ethylenically unsaturated monomer,

(b) 0 to 88.999 wt.% of at least one monofunctional ethylenically unsaturated monomer, and

(c) 0.001 to 5 wt.% of a redox initiator system which can initiate radical polymerisation,

wherein the redox initiator system comprises (i) barbituric acid or a substituted barbituric acid derivative—and/or a malonyl sulfamide and (ii) an organic peroxide that is a mono- or multifunctional carboxylic acid alkyl peroxyester, wherein the constituents (a) and (b) are separately present from constituent (c) among at least two pastes spatially separated from each other;

and a plasticizer in an amount of from 1 to 30 wt.% that is present in one or the other or both of the paste containing (c) and the paste containing (a) and (b).

50. (previously presented) The polymerizable dental composition according to claim 49, in which the alkyl group of the organic peroxide is branched or cyclic.

51. (previously presented) The polymerizable dental composition according to claim 49, in which the alkyl group of the organic peroxide is linear.

52. (currently amended) The polymerizable dental composition according to claim 49, in which the carboxylic acid alkyl

peroxyester is selected from the group consisting of carbonic-diisopropyl-peroxydiester, neodecanoic acid tertiarybutyl-peroxyester, neodecanoic acid-tertiaryamyl-peroxyester, maleic acid-tertiarybutyl-monoperoxyester, benzoic acid-tertiarybutyl-peroxyester, 2-ethylhexanoic acid-tertiarybutyl-peroxyester, 2-ethylhexanoic acid-tertiaryamyl-peroxyester, carbonic-monoisopropylester-monotertiarybutyl-peroxyester, carbonic-dicyclohexyl-peroxyester, carbonic-dimyristyl-peroxyester, carbonic dicetyl-peroxyester, carbonic-di(2-ethylhexyl)-peroxyester, carbonic-tertiarybutyl-peroxy-(2-ethylhexyl)ester, or 3,5,5-trimethylhexanoic acid-tertiarybutyl-peroxyester, benzoic acid-tertiaryamyl-peroxyester, acetic acid-tertiarybutyl-peroxyester, carbonic-di(4-tertiarybutyl-cyclohexyl)-peroxyester, neodecanoic acid-cumene-peroxyester, pivalic acid-tertiaryamyl-peroxyester and pivalic acid tertiarybutyl-peroxyester.

53. (previously presented) The polymerizable dental composition according to claim 49, in which the organic peroxide is carbonic-tertiarybutyl-peroxy-(2-ethylhexyl)ester or 3,5,5-trimethylhexanoic acid-tertiarybutyl-peroxyester.

54. (previously presented) A method for preparing a dental filling material, a stump build-up material, a fixing cement, a temporary crown or bridge material, or a dental material for the

preparation of inlays, onlays, facing shells, or modelling materials, comprising polymerizing the composition of claim 12.